UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,144	12/21/2001	Christiaan M.H. Mets	120 02220 US	8222

128 7590 08/17/2006		EXAMINER
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245		PADMANABHAN, KAVITA

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 May 2006</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 May 2006</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   Claims 1-25 are pending.

2.   Claims 1, 5, 6, 8, 9, 13, 14, 16-22, 24, and 25 have been amended.

3.   Claims 1-25 are rejected.

Drawings

4.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 2, reference character 35. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5.   The disclosure is objected to because of the following informalities:

The specification does not mention Fig. 2, reference character 35. Furthermore, the

specification at page 8, line 24 refers to the processor of Fig. 2 with the reference character 34,

not 35 as in the amended drawings.

Appropriate correction is required. The citations above are not meant to be exhaustive,

and are provided as examples. The applicant is advised to correct other similar errors as required

throughout the specification.

Claim Rejections - 35 USC § 101

6.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

7.   **Claims 1-25** are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter.

The basis of this rejection is set forth in a test of whether the invention is categorized as a

process, machine, manufacture or composition of matter and if the invention produces a useful,

concrete and tangible result. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural

phenomena) are found to be non-statutory subject matter. For a method claim to pass muster, the

recited process must produce a useful, concrete and tangible result.

In the instant case, **claims 1-12** recite a method but the method claimed appears to be

directed towards an abstract idea and does not produce a useful, concrete and tangible result.

For example, **claim 1** results in allocating storage volumes. However allocating storage

does not constitute a tangible result since there is no disclosed practical application nor is the

result made available for use through some form of conveyance of the resultant allocated storage volumes. **Claims 2-11** are similarly nonstatutory.

Claims 13-24 recite a system for processing data, consisting of means for performing a method that is substantially the same as the method recited in claims 1-12. However the means claimed all appear to consist purely of software modules, which is not statutory, per se. **Claims 14-24** are similarly nonstatutory.

Claim 25 recites a memory media for controlling a computer comprising means for performing a method that is substantially the same as the method recited in claim 1. However the means claimed all appear to consist purely of software modules, which is not statutory, per se.

The examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 101 rejections.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   **Claims 1-25** are rejected under 35 U.S.C. 102(b) as being anticipated by **Goldring** (US 5,613,113).

In regards to **claim 1**, **Goldring** teaches a method for using a computer to define, store

and retrieve the data of an industrial process, said method comprising:

(a) operating said computer with a program in response to input data entered by a user to

identify one or more events and/or activities of said data of said industrial process and

one or more attributes thereof **(Goldring; col. 1, lines 38-41; col. 3, lines 36-58; col. 5,**

lines 53-56);

(b) operating said computer with said program to classify each of said events and/or

activities and each of said attributes according to a data structure that comprises an event

and/or activity type and a plurality of attribute types to provide defined event and/or

activity types for said events and/or activities and defined attribute types for said

attributes **(Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3)**; and

(c) operating said computer with said program to allocate one or more storage volumes of

a database to each of said defined event and/or activity types for storage and retrieval of

said data by said defined attribute type **(Goldring; col. 5, lines 2-23)**.

In regards to **claim 2**, **Goldring** teaches the method of claim 1, wherein step (c) allocates

at least one storage volume to each of said defined attribute types **(Goldring; col. 5, lines 2-23)**.

In regards to **claim 3**, **Goldring** teaches the method of claim 2, wherein said data

structure further comprises a time stamp **(Goldring; Fig. 3)**, and wherein said at least one

storage volume of a first one of said events is accessed according to said time stamp for storage

and retrieval of said attributes corresponding to said first event **(Goldring; col. 5, lines 40-44; col. 6, lines 18-20; Fig. 3)**.

In regards to **claim 4, Goldring** teaches the method of claim 2, wherein at least one attribute of a plurality of said events and/or activities is common to at least one of said defined attribute types, and wherein step (c) allocates said at least one storage volume to all of said common attributes **(Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3; Fig. 2, reference characters 25, 32)**.

In regards to **claim 5, Goldring** teaches the method of claim 1, wherein step (c) allocates a first one of said storage volumes for storage of values of said data of said industrial process for said attributes of at least a first one of said defined attribute types **(Goldring; Fig. 3; Fig. 2, reference characters 25, 32)**, and further comprising compressing said data which is stored in said first one of said storage volumes according to identity of said values of said data of said attributes of consecutive events and/or activities that have been allocated for storage in said first one of said storage volumes **(Goldring; col. 7, lines 20-61 – data of activity log is compressed and placed in the system tables based on the values of the event attributes)**.

In regards to **claim 6, Goldring** teaches the method of claim 5, wherein said data structure further comprises a time stamp **(Goldring; Fig. 3)**, and wherein said first one of said storage volumes is accessed according to said time stamp for storage and/or retrieval of said values of said data, and wherein said values of said data of a first event are retrieved from said

first storage volume by using a value of a first time stamp for said first event or of a second time

stamp value of a second one of said events that is earlier in time than said first time stamp value

(Goldring; col. 5, lines 40-44; col. 6, lines 18-20; Fig. 3).

In regards to **claim 7**, **Goldring** teaches the method of claim 1, wherein step (c) allocates

a first one of said storage volumes for storage of values of said attributes of at least one of said

defined attribute types **(Goldring; col. 5, lines 2-23; Fig. 3)**, wherein said attributes of said at

least one defined attribute type are static, and further comprising optimizing data storage in said

first one of said storage volumes by omitting storage of a static value **(Goldring; col. 5, lines 7-**

16; col. 5, line 67 – col. 6, line 6 – doesn't store the other attributes related to the user table

that changed – only the update and the sequence number, because the others didn't

change, and are therefore static).

In regards to **claim 8**, **Goldring** teaches the method of claim 1, wherein said industrial

process is one of a plurality of industrial processes, and wherein steps (a), (b) and (c) are

performed for each of said plurality of processes using said data structure **(Goldring; col. 1,**

lines 25-52; col. 6, lines 26-29).

In regards to **claim 9**, **Goldring** teaches the method of claim 8, wherein at least two of

said plurality of industrial processes are different from one another **(Goldring; col. 1, lines 25-**

52; col. 6, lines 26-29).

In regards to **claim 10**, **Goldring** teaches the method of claim 1, further comprising presenting data values of different ones of said events and/or activities that are defined as different event and/or activity types in any one of a plurality of formats **(Goldring; col. 6, lines 18-20; col. 5, lines 48-59; col. 9, lines 52-60; Fig. 3)**.

In regards to **claim 11**, **Goldring** teaches the method of claim 10, wherein said plurality of formats are selected from the group consisting of: row format, column format and chart format **(Goldring; Fig. 3)**.

In regards to **claim 12**, **Goldring** teaches the method of claim 1, further comprising developing a map structure for mapping diverse external names of said attributes and/or field contents thereof to a common internal attribute name and/or field content **(Goldring; col. 5, lines 30-31; col. 5, line 59 – col. 6, line 6; col. 6, lines 54-65; Fig. 3; Fig. 4; – updates, regardless of what type or how they are referred to externally, by a user for example, are internally stored as update operations; also, a table constitutes a map structure)**.

Claims 13-24 are rejected with the same rationale given for claims 1-12, respectively.

Claim 25 is rejected with the same rationale given for claim 1.

Response to Amendment

10.   Applicant's amendment filed 5/26/06 with respect to the abstract and typographical

specification objections have been fully considered. The corresponding objections have been

withdrawn.

11.   Applicant's amendment filed 5/26/06 with respect to the drawing have been fully

considered. The corresponding objection has been withdrawn. However, the amendment to the

drawings has necessitated a new objection to the drawings and the specification since the

specification does not mention Fig. 2, reference character 35. Furthermore, the specification at

page 8, line 24 refers to the processor of Fig. 2 with the reference character 34, not 35 as in the

amended drawings.

Response to Arguments

12.   Applicant's amendments filed 5/26/06 with respect to the 35 U.S.C. 101 rejections have

been fully considered but they are not persuasive. The claims still do not appear to produce a

tangible result. Furthermore, claims 13-25 also appear to consist purely of software modules,

which are not statutory, per se.

        Applicant argues at page 11 of applicant's remarks that the examiner cites no authority

for the method producing a tangible result, and without such authority the tangible result test is

improper. The examiner respectfully disagrees with the applicant's argument that the tangible

result test is improper and refers the applicant to **MPEP 2106**, which states in part, "The claimed

invention as a whole must accomplish a practical application. That is, it must produce a "useful,

concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The

purpose of this requirement is to limit patent protection to inventions that possess a certain level

of "real world" value, as opposed to subject matter that represents nothing more than an idea or

concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383

U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d

1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some

indication of the practical application for the claimed invention, i.e., why the applicant believes

the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent

eligibility standard requires significant functionality to be present to satisfy the useful result

aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at

1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium

does not make the invention eligible for patenting. For example, a claim directed to a word

processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the

information stored may have some "real world" value. However, the mere fact that the claim

may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is

achieved under the practical application requirement. The claimed invention as a whole must

produce a "useful, concrete and tangible" result to have a practical application."

Applicant argues at page 12 of applicant's remarks that the examiner cites no authority

that software modules are not statutory, per se, and without such authority the examiner's test is

improper. The examiner respectfully disagrees with the applicant's argument that the examiner's

reasoning is improper and refers the applicant to **MPEP 2106**, which states in part, "Claims to

computer-related inventions that are clearly nonstatutory fall into the same general categories as

nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract

ideas or laws of nature which constitute "descriptive material." Abstract ideas, Warmerdam, 33

F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d

at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized

as either "functional descriptive material" or "nonfunctional descriptive material." In this

context, "functional descriptive material" consists of data structures and computer programs

which impart functionality when employed as a computer component. (The definition of "data

structure" is "a physical or logical relationship among data elements, designed to support specific

data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics

Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to

music, literary works and a compilation or mere arrangement of data. Both types of "descriptive

material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at

1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-

readable medium it becomes structurally and functionally interrelated to the medium and will be

statutory in most cases since use of technology permits the function of the descriptive material to

be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir.

1994) (claim to data structure stored on a computer readable medium that increases computer

efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to

computer having a specific data structure stored in memory held statutory product-by-process

claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se

held nonstatutory). When nonfunctional descriptive material is recorded on some computer-

readable medium, it is not statutory since no requisite functionality is present to satisfy the

practical application requirement.

Merely claiming nonfunctional descriptive material stored in a computer-readable

medium does not make it statutory. Such a result would exalt form over substance. In re Sarkar,

588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as

claimed; yet semantogenic considerations preclude a determination based solely on words

appearing in the claims. In the final analysis under 101, the claimed invention, as a whole, must

be evaluated for what it is.") (quoted with approval in Abele, 684 F.2d at 907, 214 USPQ at

687). See also In re Johnson, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of

the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer

component and it does not become statutory by merely recording it on a compact disk. Protection

for this type of work is provided under the copyright law."

13.   Applicant's arguments filed 5/26/06 with respect to the prior art rejections have been fully

considered but they are not persuasive.

Applicant argues at page 12 of applicant's remarks that Goldring does not operate on the

data of an industrial process. The examiner respectfully disagrees and asserts that Goldring

teaches the disclosed invention being used in a commercial order filling or banking system, for

example (Goldring; col. 1, lines 38-41). These constitute operating on data of an industrial

process in that the data pertains to the "commercial industry" or the "banking industry."

Applicant argues at page 12 of applicant's remarks that Goldring does not teach a

program that in response to data entered by a user identifies one or more events and/or activities

of an industrial process and one or more attributes thereof. The examiner respectfully disagrees

and refers the applicant to the rejection of the claim, as amended, above. The examiner asserts that Goldring does indeed teach a program that in response to input data entered by a user identifies one or more events and/or activities of an industrial process and one or more attributes thereof (Goldring; col. 1, lines 38-41; col. 3, lines 36-58; col. 5, lines 53-56).

Applicant goes on to argue that Goldring does not teach accessing the activity log for or based on timestamps, which the examiner assumes refers to the limitations of claim 3 and not claims 1, 13, and 25. The examiner respectfully disagrees and asserts that the activity log of Goldring is indeed accessed according to time stamp values (Goldring; col. 6, lines 18-20).

Applicant argues at page 14 of applicant's remarks that Goldring does not teach classifying events and attributes thereof according to a data structure as recited in the claims. The examiner respectfully disagrees and asserts that Goldring does indeed teach classifying events and attributes thereof in a manner that meets the limitations of the claims (Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3). For example, an update event is an event type and an event of that type is classified as such in the database, as seen by Figs. 3 and 4.

Applicant argues at page 14 of applicant's remarks that Goldring deals with tables in a relational database and does not teach the allocation of storage volumes to defined event and/or activity types. The examiner respectfully disagrees and asserts that Goldring teaches the limitations of the claims, as recited (Goldring; col. 5, lines 2-23). The examiner asserts that Goldring does indeed teach allocating a storage volume to each event type. The claims do not require that a different storage volume be allocated to each event type. Furthermore, the term "storage volume" does not appear to be defined in the applicant's specification in a manner that

would limit its broadest reasonable interpretation, and the examiner therefore asserts that a table could also be interpreted as a volume of storage.

Conclusion

14.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kavita Padmanabhan** whose telephone number is **571-272-8352.** The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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